

detached from the strawboard, which may be used over and over again. The drawing is, of course, filed away according to the drafting-room system. The most advantageous sizes for jig drawings for from medium to heavy work are about as follows:

1. Full-size sheet, 40 X 27 $\frac{1}{2}$  inches.
2. Half-size sheet, 27 $\frac{1}{2}$  X 20 inches.
3. Quarter-size sheet, 20 X 13 $\frac{1}{2}$  inches.
4. Eighth-size sheet, 13 $\frac{1}{2}$  X 10 inches.

Of course, these sizes will vary in different shops, and in many cases, particularly when the tool-designing department and the regular drafting-room are combined as one drafting department, the jig drawings should be of the same regular sizes as the ordinary machine drawings.

It is common practice in a great many shops to make no detailed drawings of jigs, but simply to draw a sufficient number of views and sections, and to dimension the different parts directly on the assembly drawings. In cases where the jig drawings are complicated, and where they are covered with a large number of dimensions which make it hard to read the drawing and to see the outlines of the jig body itself, it has proved a great help to trace the outlines of the jig body, and of such portions as are made of cast iron, on tracing paper, omitting all loose parts, and simply putting on the necessary dimensions for making the patterns. A blueprint is then made from this paper tracing, and is sent to the patternmaker, who will find the drawing less of a puzzle, and who will need to spend far less time to understand how the pattern actually looks. It is, however, good policy to detail jig drawings completely, the same as other machine details.

When jigs are made for pieces of work which require a great many operations to be carried out with the same jig, and where a great number of different bushings, different sizes of drills, reamers, counterbores, etc., are used, a special operation sheet should be provided, which should be delivered to the man using the jig, together with the jig itself. This enables him to use the jig to best advantage. On this sheet should be marked the order in which the various operations are to be performed and the